REMARKS

Claims 1-23 are now pending in the present application. Claims 1, 2, 14, and 15 have been amended. Claims 18-23 are new. Basis for the amendments and new claims can be found throughout the specification, claims, and drawings originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 10 and 11 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Dailey (U.S. Pat. No. 6,577,874). This rejection is respectfully traversed.

Referring to Claim 10, Dailey does not show, teach, or suggest a base station that compares the addresses of mobile stations to determine a partial address length at which each mobile station may be uniquely identified.

Dailey teaches a method and system for providing temporary identification numbers for mobile terminals. A mobile switching center communicates with a plurality of radio base stations to define a plurality of cells (col. 7, line 4). Conference equipment is used to support group call functionality. A mobile terminal generates a login message whenever the mobile terminal enters a new cell (col. 7, line 42). The login message includes a mobile identification number (MIN) for the mobile terminal, which is a unique 34-bit identification number. The radio base station replies with a login acknowledge message, which includes a temporary logical identification (TLID) number (col. 8, line 14). The TLID is shorter than the MIN and is used by the mobile terminal and the radio

base station during subsequent communications and while the terminal remains in the particular cell serviced by the radio base station.

The radio base station does not compare the addresses of mobile terminals to determine partial address lengths at which each mobile terminal may be uniquely identified, as required by the claims. The radio base station maintains a set of TLID numbers sufficient to assign a different TLID number to each mobile terminal programmed for group communication in the cell during peak usage (col. 11, line 51). Therefore, the TLID numbers are predetermined and not based on the MINs of the individual mobile terminals. Dailey teaches that the TLID numbers may be 8 to 10 bits (col. 11, line 13). However, only a small number of mobile terminals may currently exist in a cell serviced by a radio base station. In this case, only a few bits are required to uniquely identify each of the mobile terminals in the cell. Therefore, the radio base station wastes network resources by always utilizing the same number of bits for the TLID numbers.

Dailey does not show, teach, or suggest mobile stations that monitor specific slots for their addresses. Dailey also does not show, teach, or suggest a base station that determines a partial address length at which each mobile station with a specific slot may be uniquely identified.

Dailey teaches that the radio base stations issue page messages on appropriate paging subchannels (col. 2, line 41). A page message wakes a called mobile terminal from its battery sleep mode. The called mobile terminal responds to the appropriate radio base station with a page response message (col. 2, line 45). The mobile terminals are not in groups that each monitor individual slots of time to detect the page messages,

as required by the claims. Therefore, the radio base station does not set the length of TLID numbers for mobile terminals assigned to a particular slot in order to ensure that the TLID numbers for the mobile stations assigned to the particular slot are unique.

Applicant teaches a wireless communication system including base stations that transmit variable length portions of mobile addresses on channels that are monitored by mobile stations. The base station varies the length and/or the part of the address fields that are included in the partial addresses to ensure that all of the partial addresses are unique. For example, the base station may constantly maintain the length of the partial address at a minimum length that is sufficient to ensure that all of the partial addresses are unique. Therefore, the base station always utilizes as few network resources as possible when transmitting the partial address on the channels monitored by the mobile stations.

Claim 11 depends directly from Claim 10 and is thus believed to be allowable over Dailey for the same reasons.

REJECTION UNDER 35 U.S.C. § 103

Claims 1 and 4-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dailey (U.S. Pat. No. 6,577,874) in view of Alley et al. (U.S. Pat. No. 6,487,264). This rejection is respectfully traversed.

Referring to Claim 1, Dailey does not show, teach, or suggest using portions of mobile addresses for mobile stations to define respective partial addresses for each mobile station that are used to communicate with each mobile station. Dailey also does

not show, teach, or suggest maintaining the length of the partial addresses at a minimum length that is sufficient to ensure uniqueness of all of the partial addresses.

Dailey teaches a method and system for providing temporary identification numbers for mobile terminals. A mobile switching center communicates with a plurality of radio base stations to define a plurality of cells (col. 7, line 4). Conference equipment is used to support group call functionality. A mobile terminal generates a login message whenever the mobile terminal enters a new cell (col. 7, line 42). The login message includes a mobile identification number (MIN) for the mobile terminal, which is a unique 34-bit identification number. The radio base station replies with a login acknowledge message, which includes a temporary logical identification (TLID) number (col. 8, line 14). The TLID is shorter than the MIN and is used by the mobile terminal and the radio base station during subsequent communications and while the terminal remains in the particular cell serviced by the radio base station.

The TLID numbers are not portions of the MINs, as required by the claims. The radio base station maintains a set of TLID numbers sufficient to assign a different TLID number to each mobile terminal programmed for group communication in the cell during peak usage (col. 11, line 51). Therefore, the TLID numbers are predetermined and not based on the MINs of the individual mobile terminals.

The radio base station does not maintain the length of the TLID numbers at a minimum length that is sufficient to ensure uniqueness of all of the TLID numbers, as required by the claims. Dailey teaches that the TLID numbers may be 8 to 10 bits (col. 11, line 13). However, only a small number of mobile terminals may currently exist in a cell serviced by a radio base station. In this case, only a few bits are required to

uniquely identify each of the mobile terminals in the cell. Therefore, the radio base station wastes network resources by always utilizing the same number of bits for the TLID numbers.

Alley et al. do not remedy the shortcomings of Dailey. Alley et al. teach a radio frequency (RF) modem that is used with a host device for transmitting information to, and receiving information from, other host devices. The devices communicate data packets that include a destination address field and a source address field (col. 12, line 47). Alley et al. teach that after a valid link is made, synchronization is not necessary. Therefore, the destination address field and the source address field are reduced to the least significant byte (col. 12, line 47). However, the lengths of the destination and source address fields are fixed. Additionally, the lengths of the destination and source address fields are not maintained at a minimum length that is sufficient to ensure uniqueness of all of the destination and/or source address fields.

Applicant teaches a wireless communication system including base stations that transmit variable length portions of mobile addresses on channels that are monitored by mobile stations. The base station varies the length and/or the part of the address fields that are included in the partial addresses to ensure that all of the partial addresses are unique. For example, the base station may constantly maintain the length of the partial address at a minimum length that is sufficient to ensure that all of the partial addresses are unique. Therefore, the base station always utilizes as few network resources as possible when transmitting the partial address on the channels monitored by the mobile stations.

Claims 4-7 depend directly or indirectly from Claim 1 and are thus believed to be allowable over Dailey and Alley et al. for the same reasons.

Claims 2, 3, 15, and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dailey (U.S. Pat. No. 6,577,874) in view of Willey (U.S. Pat. No. 6,300,864). This rejection is respectfully traversed.

Referring to Claim 2, Dailey does not show, teach, or suggest using portions of mobile addresses for mobile stations to define respective partial addresses for each mobile station that are used to communicate with each mobile station. Dailey also does not show, teach, or suggest maintaining the length of the partial addresses at a minimum length that is sufficient to ensure uniqueness of all of the partial addresses.

The arguments made above with respect to Claim 1 are equally applicable to Claim 2. The TLID numbers taught by Dailey are not portions of the MINs. The radio base station maintains a set of TLID numbers sufficient to assign a different TLID number to each mobile terminal programmed for group communication in the cell during peak usage. Therefore, the TLID numbers are predetermined and not based on the MINs of the individual mobile terminals. The radio base station does not maintain the length of the TLID numbers at a minimum length that is sufficient to ensure uniqueness of all of the TLID numbers. The radio base station wastes network resources by always utilizing the same number of bits for the TLID numbers.

Dailey also does not show, teach, or suggest sorting the list of mobile addresses by slot location so that each mobile station in a slot has a unique partial address.

Dailey teaches that the radio base stations issue page messages on appropriate paging subchannels (col. 2, line 41). A page message wakes a called mobile terminal

from its battery sleep mode. The called mobile terminal responds to the appropriate radio base station with a page response message (col. 2, line 45). The mobile terminals are not in groups that each monitor individual slots of time to detect the page messages, as required by the claims. Therefore, the radio base station does not set the length of TLID numbers for mobile terminals assigned to a particular slot in order to ensure that the TLID numbers for the mobile stations assigned to the particular slot are unique.

Willey does not remedy the shortcomings of Dailey. Willey teaches a method for transmitting and receiving address information within a communication system. The address information may be transmitted to a group of mobile stations assigned to a slot utilized to transmit messages (col. 3, line 24). Addresses for mobile stations that require paging within the slot are determined. The mobile stations are grouped by common least significant bits, and the groups are sorted by the number of members in a group (col. 3, line 24). A first address portion for each mobile station in the subset is transmitted within the first frame of the slot.

The first address portion is only a portion of a complete mobile station address (col. 3, line 32). Grouped mobile stations having the fewest members have a larger number of partial address bits within the first frame. However, Willey does not teach varying address lengths in order to ensure uniqueness of all addresses. Willey teaches setting a first sub-frame equal to least significant bits of a mobile address, where the number of bits is inversely proportional to the number of mobile stations being paged. However, this only applies to the first sub-frame. The remainder of the address bits is transmitted in subsequent frames. Therefore, Willey teaches transmitting the entire

mobile address in a re-ordered form as opposed to utilizing portions of a mobile address for subsequent addressing purposes.

Claim 3 depends directly from Claim 2 and is thus believed to be allowable over Dailey and Willey for the same reasons.

Referring to Claim 15, Dailey does not show, teach, or suggest using portions of mobile addresses to define respective partial addresses for each terminal in a wireless communication system which results in each terminal of the wireless communication system obtaining a unique partial address. Dailey also does not show, teach, or suggest maintaining the length of the partial addresses at a minimum length that is sufficient to ensure the uniqueness of all of the partial addresses.

The arguments made above with respect to Claim 2 are equally applicable to Claim 15. The TLID numbers taught by Dailey are not portions of the MINs. The radio base station maintains a set of TLID numbers sufficient to assign a different TLID number to each mobile terminal programmed for group communication in the cell during peak usage. Therefore, the TLID numbers are predetermined and not based on the MINs of the individual mobile terminals. The radio base station does not maintain the length of the TLID numbers at a minimum length that is sufficient to ensure uniqueness of all of the TLID numbers. The radio base station wastes network resources by always utilizing the same number of bits for the TLID numbers.

Dailey also does not show, teach, or suggest dividing the addresses into groups based on the monitored slot, wherein each address in a group is unique. The mobile terminals are not in groups that each monitor individual slots of time to detect the page messages. Therefore, the radio base station does not set the length of TLID numbers

for mobile terminals assigned to a particular slot in order to ensure that the TLID numbers for the mobile stations assigned to the particular slot are unique.

Willey does not remedy the shortcomings of Dailey. Willey does not teach varying address lengths in order to ensure uniqueness of all addresses. Willey teaches transmitting the entire mobile address in a re-ordered form as opposed to utilizing portions of a mobile address for subsequent addressing purposes.

Claim 16 depends directly from Claim 15 and thus is believed to be allowable over Dailey and Willey for the same reasons.

Claims 8, 9, 12-14, and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dailey (U.S. Pat. No. 6,577,874) in view of Alley et al. (U.S. Pat. No. 6,487,264). This rejection is respectfully traversed.

Referring to Claim 8, Dailey does not show, teach, or suggest a base station that compares the addresses of mobile stations to determine a partial address length at which each mobile station may be uniquely identified.

The arguments made above with respect to Claim 10 are equally applicable to Claim 8. The radio base station taught by Dailey does not compare the addresses of mobile terminals to determine partial address lengths at which each mobile terminal may be uniquely identified. The TLID numbers are predetermined and not based on the MINs of the individual mobile terminals. The radio base station wastes network resources by always utilizing the same number of bits for the TLID numbers.

Dailey also does not show, teach, or suggest varying the partial address length between slots. The mobile terminals are not in groups that each monitor individual slots of time to detect the page messages. The radio base station does not set the length of

TLID numbers for mobile terminals assigned to a particular slot in order to ensure that the TLID numbers for the mobile stations assigned to the particular slot are unique.

Alley et al. do not remedy the shortcomings of Dailey. The lengths of the destination and source address fields taught by Alley et al. are fixed. The lengths of the destination and source address fields are not maintained at a minimum length that is sufficient to ensure uniqueness of all of the destination and/or source address fields.

Claims 9, 12, and 13 depend directly from Claim 8 and are thus believed to be allowable over Dailey and Alley et al. for the same reasons.

Referring to Claim 14, Dailey does not show, teach, or suggest using portions of mobile addresses to define respective partial addresses for each terminal in a wireless communication system which results in each terminal of the wireless communication system obtaining a unique partial address. Dailey also does not show, teach, or suggest maintaining the length of the partial addresses at a minimum length that is sufficient to ensure the uniqueness of all of the partial addresses.

The arguments made above with respect to Claim 15 are equally applicable to Claim 14. The TLID numbers taught by Dailey are not portions of the MINs. The TLID numbers are predetermined and not based on the MINs of the individual mobile terminals. The radio base station does not maintain the length of the TLID numbers at a minimum length that is sufficient to ensure uniqueness of all of the TLID numbers. The radio base station wastes network resources by always utilizing the same number of bits for the TLID numbers.

Dailey also does not show, teach, or suggest varying the partial address length between slots. The mobile terminals are not in groups that each monitor individual slots

of time to detect the page messages. Therefore, the radio base station does not set the length of TLID numbers for mobile terminals assigned to a particular slot in order to ensure that the TLID numbers for the mobile stations assigned to the particular slot are unique.

Alley et al. do not remedy the shortcomings of Dailey. The lengths of the destination and source address fields taught by Alley et al. are fixed. The lengths of the destination and source address fields are not maintained at a minimum length that is sufficient to ensure uniqueness of all of the destination and/or source address fields.

Claim 17 depends directly from Claim 14 and is thus believed to be allowable over Dailey and Alley et al. for the same reasons.

NEW CLAIMS

New Claims 18 and 19 are dependant upon Claim 1 and are believed to properly further limit Claim 1.

New Claims 20 and 21 are dependant upon Claim 8 and are believed to properly further limit Claim 8.

New Claims 22 and 23 are dependant upon Claim 14 and are believed to properly further limit Claim 14.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: April 26, 2005

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